

In order to conserve the heat of the juice in the clarifier, the body 16 may be insulated and covered with a circular roof covering with suitable cut outs for ancillary equipment and inspection ports.

## SUMMARY

39. In summary, the Applicant believes that the clarification apparatus in accordance with the invention provides a more efficient and less expensive sugar juice clarifier than currently available for the purpose of sugar juice clarification (purification) through settlement of the precipitate and mud.

40. I claim:

1. A sugar juice clarification apparatus comprising of a cylindrical clarification tank with an internal rotating arm and hub that incorporates the infeed and even distribution of mixed sugar juice and simultaneously, permits the extraction of clear (clarified) juice and precipitate (mud) as the arm rotates about the center of the clarification tank.
2. A sugar juice clarification apparatus as claimed in Claim 1, wherein the separation of the different density liquid components of the sugar mixed juice can occur more efficiently due to the hydraulically turbulent-free, state of the settlement volume of the contents of the clarifier.
3. A sugar juice clarification apparatus as claimed in Claim 1, wherein the introduction of the mixed juice and the extraction of the clear juice and precipitate (mud) through the rotating arm assembly of the clarifier is achieved by variable sized apertures to ensure even distribution and extraction of the respective incoming and extracted liquids, so as to keep internal hydraulic turbulence of the clarifier contents to an absolute minimum.
4. A sugar juice clarification apparatus as claimed in Claim 1, wherein the hydraulically turbulent-free settlement volume of the clarifier body allows for shorter retention times of the sugar juice than conventional clarifiers resulting in less sucrose loss through inversion degradation.